Doc No.:	X3/92-0896-X S
Date:	April 6, 1992
Proj. No.:	791-D
Ref.:	Comment #1
Reply To:	Lynn Barra
	202-626-5738
cc:	X3 members, SPARC, SMC, Subgroup Officers

To: X3T9 – FOR ACTION

Subject: Transmittal of Public Review Comment #1
           BSR X3.221-199x, ATA (At Attachment)

Attached is a comment on BSR X3.221-199x, submitted by Mr. Roland D. Whatcott from Novell Inc.
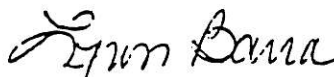
In order to provide administrative control, the Secretariat is maintaining a register of all comments received during the public review and has assigned the comment registry number indicated above.

The X3.221-199x, public review and comment period extends from March 6, 1992 through July 6, 1992. The comment was received on April 3, 1992.

If the Technical Committee action is to accept in whole or in part a proposal contained in the comment, then the changes should be sent to the Coordinator of National Standards Processing together with any TC comments supporting the change. If the TC action is to reject in whole or in part proposals contained in the comment, the response should provide the rationale for the rejection.

The comment should be discussed at the next TC meeting, and if not definitively responded to at once, an interim acknowledgement should be sent along with an estimated date of action. When a final response is issued you must inform the commentors of their need to notify the Secretariat of their satisfaction or dissatisfaction with the committee's response. The commentor is required to send the Secretariat a written statement indicating acceptance or rejection of the TC response within fifteen working days. The commentor must be made aware that failure to respond within fifteen working days indicates to the Secretariat that the comment has been withdrawn.

Sincerely,

Lynn Barra

Lynn Barra
Coordinator, Standards Processing, X3

Attachment: Comment #1

cc: D. Shoemaker, X3T9 Chair

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COMMENTS FROM PUBLIC REVIEW
OF THE CAM AT ATTACHMENT
X3.221-199X

March 27 1992

Roland D. Whatcott
Software Engineer
Novell

After reviewing the AT Attachment proposed by the Accredited Standards Committee and working with many drives that follow this specification we have come across some problems. We would like to make two proposals that will help to solve these problems.

Proposal #1:

Objective:

The objective of this proposal is to provide those who use the information in the ATA drive Identify command a method that they can determine if the drive will do read write multiple commands correctly.

Problem:

The problem is that the read write multiple byte in the Identify structure (the lower byte of word 47) has been set by many drives that do not implement these commands correctly. This is a real problem for people who want to use this feature across a wide range of drives since the users cannot be sure of which drives support this feature and which drives do not support this feature.

Proposed Solution:

The solution that we at Novell propose is that after a drive has been carefully tested and shown to support read and write multiple commands that **bit #15 of word #47** in the Identify structure can be set. This bit is a vendor unique bit and should be zero on all of the early drives. The driver writers can then check this bit if it is set they can then assume that the information contained in the first byte of word 47 is valid. This method would allow for backward compatibility of drivers that function in a heterogeneous environment without compromising data or performance. The disadvantage here would be to drives that currently support the read write multiple commands correctly the drivers would not take advantage of this feature in current drives until they implemented the change in bit #15 of word #47. We feel like this is a satisfactory solution to this problem and would appreciate your comments or suggestions.

Proposal #2:

Objective:

The objective of this proposal is to provide operating systems a way to determine the current read/write multiple block size.

Problem:

If operating systems are sharing the same drive it is necessary for them to leave the drive in the same configuration they found it, in order to do this there needs to be a way of determining the current read/write multiple configuration. There is also a problem with some drives currently on the market that will not accept a read/write sector(s) command while they are in read/write multiple mode. This can also be a problem for drivers that don't know if the drive is currently in read/write multiple mode or not.

Solution:

As was done with the drives current heads, sectors, and cylinders; we at Novell would like to have the current read/write multiple block size available in the identify structure in the low byte of word 59. This would allow operating systems that are sharing a drive to either put the drive back into the previous state or else use the same parameters of the competing operation system.

Roland D. Whatcott
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